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EXAMINER	
CHOJNACKI, MELLISSA M	
ART UNIT	**PAPER NUMBER**
2164	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/079,563	KASHITO ET AL.	
	Examiner	Art Unit	
	Mellissa M. Chojnacki	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on June 7, 2005, no claims are cancelled; no claims have been amended, and no new claims have been added. Therefore, claims 1-25 are still presently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al. (U.S. Patent No. 6,098,074) in view of DuMouchel et al. (U.S. Patent No. 6,539,391), in further view of Matsuda et al. (U.S. Patent Application Publication 2002/0065841).

As to claim 1, Cannon et al. teaches an information management apparatus applied to an information processor including a data storage unit in which various data are stored and an output unit to present information including contents stored in the data storage unit (See abstract; column 4, lines 52-56), the information management apparatus comprising:

information data input means for inputting information data (See column 4, lines 62-65),

manager means for storing in the data storage unit the information data input through the information data input means (See column 4, lines 52-65; column 11, lines 41-53),

the predetermined information data and summary data being selected according to a criterion set in a variable manner (See abstract, column 2, lines 15-19).

Cannon et al. does not teach summary data generation means for generating summary data that can indicate succinctly contents of the information data input through the information data input means; the summary data generated by the summary data generation means in correspondence; wherein the manager means comprises data reduction means for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input means and corresponding the summary data is insufficient in the data storage unit.

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches summary data generation means for generating summary data that can indicate succinctly contents of the information data input through the information data input means (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9); and the summary data generated by the summary data generation means in correspondence (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to include summary data generation means for generating summary data that can indicate succinctly- contents of the information data input through the information data input means; and the summary data generated by the summary data generation means in correspondence.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because summary data generation means for generating summary data that can indicate succinctly- contents of the information data input through the information data input means; and the summary data generated by the summary data generation means in correspondence would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach wherein the manager means comprises data reduction means for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input means and corresponding the summary data is insufficient in the data storage unit.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches wherein the manager means comprises data

reduction means for reducing a data amount of at least one of predetermined the information data (See paragraph 008-009; paragraph 0090-0092) and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input means and corresponding the summary data is insufficient in the data storage unit (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include wherein the manager means comprises data reduction means for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input means and corresponding the summary data is insufficient in the data storage unit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because wherein the manager means comprises data reduction means for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input means and corresponding the summary data is insufficient in

the data storage unit would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claims 2 and 20, Cannon et al. as modified, teaches wherein the data reduction means reduces the data amount of at least one of the predetermined information data and summary data in a stepped manner (See Cannon et al., column 2, lines 49-54; also see DuMouchel et al., column 1, lines 6-7, lines 43-47; column 3, lines 6-9; also see Matsuda et al., paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092); wherein the step of reducing a data amount comprises the step of reducing a data amount in a stepped manner (See Cannon et al., column 2, lines 49-54; also see Matsuda et al., paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

As to claims 3 and 21, Cannon et al. as modified, teaches wherein reduction of the data amount is effected by deleting at least one of the predetermined information data and summary data from the data storage unit (See Cannon et al., column 15, lines 57-60; also see DuMouchel et al., column 1, lines 6-7, lines 43-47; column 3, lines 6-9; also see Matsuda et al., abstract; paragraph 004; paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092); wherein the step of reducing a data amount comprises the step of deleting data See Cannon et al., column 15, lines 57-60; also see Matsuda et al., abstract; paragraph 004; paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

As to claims 4 and 22, Cannon et al. as modified, teaches wherein reduction of the data amount is effected by compressing at least one of the predetermined information data and summary data in the data storage unit (See DuMouchel et al., abstract; column 4, lines 54-57; also see Matsuda et al., paragraph 0074-0077); wherein the step of reducing a data amount comprises the step of compressing data (See DuMouchel et al., abstract; column 4, lines 54-57; also see Matsuda et al., paragraph 0074-0077).

As to claims 5 and 23, Cannon et al. as modified, teaches wherein, when the available capacity for storage is still insufficient even after all the predetermined information data and summary data are compressed in the data storage unit (See Cannon et al., column 4, lines 27-35; column 7, lines 59-61; DuMouchel et al., column 1, lines 6-7, lines 43-47; column 3, lines 6-9; also see Matsuda et al., abstract; paragraph 004; paragraph 008-009; paragraph 0037; paragraph 0074-0077; paragraph 0090-0092), the manager means deletes at least one of the predetermined information data and summary data stored in correspondence in the data storage unit until the available capacity for storage is ensured in the data storage unit (See Cannon et al., column 15, lines 57-60; also see DuMouchel et al., column 1, lines 6-7, lines 43-47; column 3, lines 6-9); including the additional step the size of the third data to be input is larger than the of, remaining capacity after the step of data compressing data, deleting (See Cannon et al., column 4, lines 27-35; column 7, lines 59-61; Matsuda et al.,

abstract; paragraph 004; paragraph 008-009; paragraph 0037; paragraph 0074-0077; paragraph 0090-0092).

As to claim 6, Cannon et al. as modified, teaches wherein the data amount of at least one of the predetermined information data and summary data is deleted in a stepped manner until the available capacity for storage is ensured (See Cannon et al., column 15, lines 57-60; also see DuMouchel et al., column 1, lines 6-7, lines 43-47; column 3, lines 6-9; also see Matsuda et al., abstract; paragraph 004; paragraph 008-009; paragraph 0037; paragraph 0074-0077; paragraph 0090-0092).

As to claims 7 and 24, Cannon et al. as modified, teaches further comprising importance level determination means for determining a level of importance of the information data corresponding to the summary data based on a variably-set predetermined guideline, the criterion corresponding to the level of importance determined by the importance level determination means (See Cannon et al., abstract; column 11, lines 6-17, lines 30-38; also see Matsuda et al., abstract; paragraph 004; paragraph 007-009; paragraph 0038; paragraph 0037; paragraph 0074-0077; paragraph 0090-0092); 19 including the additional step of determining a level of importance of the first data and the second data based on a variably set, predetermined guideline, the predetermined guideline comprising the criterion (See Cannon et al., abstract; column 11, lines 6-17, lines 30-38; also see Matsuda et al., abstract;

paragraph 004; paragraph 007-009; paragraph 0038; paragraph 0037; paragraph 0074-0077; paragraph 0090-0092).

As to claim 8, Cannon et al. as modified, teaches further comprising guideline set means operated by an eternal source for setting the predetermined guideline in a variable manner (See Cannon et al., abstract; also see DuMouchel et al., abstract; column 1, lines 43-47, where "guideline" is read on "characteristic values").

As to claim 9, Cannon et al. as modified, teaches wherein the level of importance corresponding to the predetermined information data and summary data is lower than the level of importance of the newly input information data (See Cannon et al., abstract; column 11, lines 6-17, lines 30-38; also see Matsuda et al., abstract; paragraph 004; paragraph 007; paragraph 0038).

As to claim 10, Cannon et al. as modified, teaches wherein the manager means comprises insufficient capacity determination means for determining the insufficient capacity based on a comparison result by comparing an available capacity in the data storage unit and a total size of the information data newly input through the information data input means and corresponding the summary data (See Cannon et al., column 4, lines 27-35; column 7, lines 59-61, where "capacity" is read on "volume"; column 8, lines 8-11; column 16, lines 33-36; also see Matsuda et al., abstract; paragraph 009; paragraph 0035; paragraph0045).

As to claim 11, Cannon et al. as modified, teaches wherein the summary data generation means generates the summary data based on data obtained according to a predetermined condition from contents of the information data (See DuMouchel et al., column 1, lines 6-7, lines 43-47; column 3, lines 6-9), and wherein the predetermined condition is set, in a variable manner (See Cannon et al., abstract, column 2, lines 15-19).

As to claims 12 and 25, Cannon et al. as modified, teaches further comprising condition set means operated by an external source for setting the predetermined condition in a variable manner (See Cannon et al., abstract, column 2, lines 15-19; also see DuMouchel et al., column 2, lines 14-18, lines 44-49); wherein the variable criterion comprises a date of receipt of the first data (See Cannon et al., abstract, column 2, lines 15-19; also see DuMouchel et al., column 2, lines 14-18, lines 44-49).

As to claim 13, Cannon et al. teaches an information management method (See abstract; column 4, lines 52-56) comprising:

an information data input step of inputting information data (See column 4, lines 62-65),

an organization step storing in correspondence the information data input at the information data input step (See column 4, lines 52-65; column 11, lines 41-53),

wherein the predetermined information data and summary data are selected according to a criterion set in a variable manner (See abstract, column 2, lines 15-19).

Cannon et al. does not teach a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance; wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit .

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9); and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to include a

summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches wherein the organization step includes a data

reduction step of reducing a data amount of at least one of predetermined the information data (See paragraph 008-009; paragraph 0090-0092) and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the

data storage unit would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claim 14, Cannon et al. teaches an information management method (See abstract; column 4, lines 52-56) comprising:

an information data input step of inputting information data (See column 4, lines 62-65),

an organization step storing in correspondence the information data input at the information data input step (See column 4, lines 52-65; column 11, lines 41-53),

wherein the predetermined information data and summary data are selected according to a criterion set in a variable manner (See abstract, column 2, lines 15-19).

Cannon et al. does not teach a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance; wherein the organization step comprises a compression step of compressing at least one of predetermined the information data; the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9); wherein the organization step comprises a compression step of compressing at least one of predetermined the information data (See abstract; column 4, lines 54-57); and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance (See abstract; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; wherein the organization step comprises a compression step of compressing at least one of predetermined the information data; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input

step; wherein the organization step comprises a compression step of compressing at least one of predetermined the information data; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092) .

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data

newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claim 15, Cannon et al. teaches a machine-readable recording medium recorded with an information management program to execute an information management method with the machine,

the information management (See abstract; column 4, lines 52-56) method comprising:

an information data input step of inputting information data (See column 4, lines 62-65),

an organization step storing in correspondence the information data input at the information data input step (See column 4, lines 52-65; column 11, lines 41-53),

wherein the predetermined information data and summary data are selected according to a criterion set in a -variable manner (See abstract, column 2, lines 15-19).

Cannon et al. does not teach a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance; wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9); and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data

generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data (See paragraph 008-009; paragraph 0090-0092) and the summary

data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because wherein the organization step includes a data reduction step of reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claim 16, Cannon et al. teaches a program product to execute an information management method with a computer, the information management (See abstract; column 4, lines 52-56) method comprising:

an information data input step of inputting information data (See column 4, lines 62-65),

an organization step of storing in correspondence the information data input at the information data input step (See column 4, lines 52-65; column 11, lines 41-53),

wherein the predetermined information data and summary data are selected according to a criterion set in a variable manner (See abstract, column 2, lines 15-19).

Cannon et al. does not teach a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance; wherein the organization step comprises a data reduction step of reducing at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches a summary data generation step of generating

summary data that can indicate succinctly contents of the information data input at the information data input step (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9); and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because a summary data generation step of generating summary data that can indicate succinctly contents of the information data input at the information data input step; and the summary data generated at the summary data generation step in a data storage unit prepared in advance from which stored contents are presented via an output unit prepared in advance, would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach wherein the organization step comprises a data reduction step of reducing at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches wherein the organization step comprises a data reduction step of reducing at least one of predetermined the information data (See paragraph 008-009; paragraph 0090-0092) and the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include wherein the organization step comprises a data reduction step of reducing at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because wherein the organization step comprises a data reduction step of reducing at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until an available capacity for storage is ensured when the capacity to store the information data newly input at the information data input step and corresponding the summary data is insufficient in the data storage unit would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claim 17, Cannon et al. teaches an information management apparatus applied to an information processor including a data storage unit in which various data are stored and an output unit to present information including contents stored in the data storage unit (See abstract; column 4, lines 52-56).

Cannon et al. does not teach an input for inputting information data, a summary data generator for generating summary data that indicates succinctly contents of the information data input; the predetermined information data and summary data being selected according to a criterion set in a variable manner; and a data manager for storing in the data storage unit the information data and the summary data generated by the summary data generator in correspondence, wherein the data manager comprises a data reducer for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage

unit until a capacity available for storage is ensured when the capacity to store the information data newly input through according to a criterion set in a variable manner (See abstract, column 2, lines 15-19).

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches an input for inputting information data, a summary data generator for generating summary data that indicates succinctly contents of the information data input (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9); the predetermined information data and summary data being selected according to a criterion set in a variable manner (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to include an input for inputting information data, a summary data generator for generating summary data that indicates succinctly contents of the information data input; the predetermined information data and summary data being selected according to a criterion set in a variable manner.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because an input for inputting information data, a summary data generator for generating summary data that indicates succinctly contents of the information data input; the predetermined information data and summary data being selected according to a criterion set in a variable manner would make it feasible for large data files, with

condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach a data manager for storing in the data storage unit the information data and the summary data generated by the summary data generator in correspondence, wherein the data manager comprises a data reducer for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input and corresponding the summary data is insufficient in the data storage unit.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches a data manager for storing in the data storage unit the information data and the summary data generated by the summary data generator in correspondence (See paragraph 008-009; paragraph 0090-0092), wherein the data manager comprises a data reducer for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input and corresponding the summary data is insufficient in the data storage unit (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to

include a data manager for storing in the data storage unit the information data and the summary data generated by the summary data generator in correspondence, wherein the data manager comprises a data reducer for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input and corresponding the summary data is insufficient in the data storage unit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because a data manager for storing in the data storage unit the information data and the summary data generated by the summary data generator in correspondence, wherein the data manager comprises a data reducer for reducing a data amount of at least one of predetermined the information data and the summary data stored in correspondence in the data storage unit until a capacity available for storage is ensured when the capacity to store the information data newly input through the information data input and corresponding the summary data is insufficient in the data storage unit would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claim 18, Cannon et al. teaches an information management method (See abstract; column 4, lines 52-56) comprising:

inputting information data (See column 4, lines 62-65),

wherein the data are selected manner predetermined information data and the summary according to a criterion set in a variable data (See abstract, column 2, lines 15-19).

Cannon et al. does not teach generating summary data that the information data, and indicates succinctly contents of storing in correspondence the information data and the summary data a data storage unit from which stored contents are presented via an output unit, and summary data being selected according to a criterion set in a variable manner; wherein, when a capacity to store newly input information data is insufficient, the step of storing correspondence includes a step of reducing a data amount of at least one of the information data and the summary data stored in correspondence until a capacity available for storage is ensured.

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches generating summary data that the information data, and indicates succinctly contents of storing in correspondence the information data and the summary data a data storage unit from which stored contents are presented via an output unit (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9); and summary data being selected according to a criterion set in a variable manner (See column 1, lines 6-7, lines 43-47; column 2, lines 19-29, lines 41-44; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to include generating summary data that the information data, and indicates succinctly contents of storing in correspondence the information data and the summary data a data storage

unit from which stored contents are presented via an output unit; and summary data being selected according to a criterion set in a variable manner.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because generating summary data that the information data, and indicates succinctly contents of storing in correspondence the information data and the summary data a data storage unit from which stored contents are presented via an output unit; and summary data being selected according to a criterion set in a variable manner would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach wherein, when a capacity to store newly input information data is insufficient, the step of storing correspondence includes a step of reducing a data amount of at least one of the information data and the summary data stored in correspondence until a capacity available for storage is ensured.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches wherein, when a capacity to store newly input information data is insufficient, the step of storing correspondence includes a step of reducing a data amount of at least one of the information data and the summary data stored in correspondence until a capacity available for storage is ensured (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include wherein, when a capacity to store newly input information data is insufficient, the step of storing correspondence includes a step of reducing a data amount of at least one of the information data and the summary data stored in correspondence until a capacity available for storage is ensured.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because wherein, when a capacity to store newly input information data is insufficient, the step of storing correspondence includes a step of reducing a data amount of at least one of the information data and the summary data stored in correspondence until a capacity available for storage is ensured would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

As to claim 19, Cannon et al. teaches an information management method (See abstract; column 4, lines 52-56) comprising the steps of:

providing a data storage unit having a capacity (See abstract);

inputting first data and second data into the data storage unit (See column 4, lines 62-65).

Cannon et al. does not teach generating first summary data for the first data and second summary data for the second data.

DuMouchel et al. teaches a method and system for squashing a large data set (See abstract), in which he teaches generating first summary data for the first data and second summary data for the second data (See column 1, lines 6-7, lines 43-47; column 3, lines 6-9).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al., to include generating first summary data for the first data and second summary data for the second data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of DuMouchel et al. because generating first summary data for the first data and second summary data for the second data would make it feasible for large data files, with condensed summaries to fit into physical memory (See DuMouchel et al., column 1, lines 14-17, lines 40-45).

Cannon et al. as modified, still does not teach determining a remaining capacity the data storage unit storing the first data, first summary data, second data and second summary data; if a size of third data be input is larger than the remaining capacity, reducing a data amount of least one of the first data, the first summary data, the second data and the second summary data until the remaining capacity is greater than or equal to the size of the third data to be input, the at least one of the first data, first summary data, second data and second summary data to be reduced being determined according to a variable criterion.

Matsuda et al. teaches a device for retaining important data on a preferential basis (See abstract), in which he teaches determining a remaining capacity the data storage unit storing the first data, first summary data, second data and second summary data; if a size of third data be input is larger than the remaining capacity, reducing a data amount of least one of the first data, the first summary data, the second data and the second summary data until the remaining capacity is greater than or equal to the size of the third data to be input, the at least one of the first data, first summary data, second data and second summary data to be reduced being determined according to a variable criterion (See paragraph 008-009; paragraph 0074-0077; paragraph 0090-0092).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Cannon et al. as modified, to include determining a remaining capacity the data storage unit storing the first data, first summary data, second data and second summary data; if a size of third data be input is larger than the remaining capacity, reducing a data amount of least one of the first data, the first summary data, the second data and the second summary data until the remaining capacity is greater than or equal to the size of the third data to be input, the at least one of the first data, first summary data, second data and second summary data to be reduced being determined according to a variable criterion.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Cannon et al., by the teachings of Matsuda et al. because determining a remaining capacity the data storage unit storing the first data,

first summary data, second data and second summary data; if a size of third data be input is larger than the remaining capacity, reducing a data amount of least one of the first data, the first summary data, the second data and the second summary data until the remaining capacity is greater than or equal to the size of the third data to be input, the at least one of the first data, first summary data, second data and second summary data to be reduced being determined according to a variable criterion would automatically take into account the significance of data when the demand has increased for free storage space (See Matsuda et al., paragraph 006).

Response to Arguments

4. Applicant's arguments filed on 07-June -2005, with respect to the rejected claims 1-25 have been fully considered but they are not found to be persuasive:

In response to applicants' arguments regarding claims 1-19, that "Cannon does not disclose summary data generation means generating summary data. However, Office Action asserts that Cannon shows manager means for storing information data and the summary data generated by the summary data generation means correspondence." Applicant again submits that if Cannon does not show summary data generation means, Cannon cannot logically show the manager means required claim in other words, Cannon does not generate summary data, Cannon cannot have manager means that operate on the (nonexistent) summary data", the arguments have been fully considered but are not found to be persuasive, because the examiner would like to

clarify that DuMouchel et al. teaches summarizing data and storage for the summarized data (See abstract; column 1, lines 1-17; column 2, lines 19-29, lines 41-44).

In response to applicants' arguments regarding claims 1-19, that "prima facia case of obviness had not been presented...It is therefore respectfully requested that the examiner address these arguments as required by the MPEP 707.07(f) in a further, non-final office action or allow the pending claims", the arguments have been fully considered but are not found to be persuasive, because both cited references teach inventions that are in the same field of endeavor. The primary reference, Cannon et al, teaches a storage management system with file aggregation, involving information management and storing data (see Abstract). The secondary reference, DuMouchel et al., teaches a method and system for squashing a large data set (see Abstract) in which storing summarized data is taught. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the invention of Cannon et al, by the teaching of DuMouchel et al., to reach the invention as explained in applicant's claim 1. In regards to applicants' arguments regarding MPEP 707.07(f) and a non-final office action to address these arguments, the arguments have been fully considered but are not found to be persuasive, because the arguments were addressed in the motivation to combined both prior art within the claims. Also, "Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner **introduces a new ground of rejection** that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with

the fee set forth in 37 CFR 1.17(p)" (See MPEP 706.07 (a) -"Final Rejection, When Proper on Second Action") .

Further, in response to applicants' arguments above, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mellissa M. Chojnacki whose telephone number is (571) 272-4076. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 2, 2005
Mmc

SAM RIMELL
PRIMARY EXAMINER